

White paper

15 important Steps to Build a Great Chatbot

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15 Important steps to build a winning chatbot or voice assistant

You have played around with chatbots and voice assistants. You know which ones you like and which ones you don't. Some of them are engaging and some are boring. Some help you solve problems and others just seem to create problems. Maybe you have already tried implementing a chatbot or voice assistant. You found a platform that made it easy to create and deploy an AI Assistant and you realized that you can push the tech live within a few minutes.

But the real question is: how do you create a good chatbot? One that people enjoy talking too, that helps users to get the job done. One that represents your brand and can carry a conversation in a natural and empathic way. There are a few steps you need to take to get to that level. They are steps that are part of our proven workflow that is being used by startups and enterprises around the world. It helps them unlock the potential of conversational AI technology to drive business value and create human-centric experiences for their users. Let's go over them one by one.

These are all steps that you need to take to design, develop, and deploy a winning chatbot or voice assistant.



— First steps

The requirements of building a chatbot

01 Technology

Before we start any project, we want to understand which technologies we are working with. What are the NLU capabilities, which integrations are there, and which kind of handover options do we have at our disposal?

02 Operations

Next, we look at the operations. What kind of operation are we designing this AI Assistant for? Better yet, what kind of use cases are we going to be designing for and what kind of conversations are we going to be having? We need to know this before we can move on to the next step.

03 User persona

Now that we know what kind of conversations we are going to be having, we need to understand who we are going to be having these conversations with. Most organizations have extended research on their user persona so it's often best to check with marketing and branding. Then you don't have to do the research yourself which will save you some time.

04 Bot persona

We know what kind of conversations we are going to be having and who we are going to be having them with. Now the important question is, who is the best fit to have these conversations on our behalf? The answer to this question is your bot personality.

You need a bot personality to deliver a consistent and trustworthy tone-of-voice that resonates with your audience and keeps them engaged throughout the conversation. We have sorted out the requirements. Now it's time to actually start designing conversations. After the requirements, you enter the phase of Happy Conversation Design.





— Next steps

Happy conversation design

05 Selecting the right use case

Based on data and business needs, you can take a use case from your backlog. It's important to take the right use case for your team and maturity level. Seemingly simple things can turn out to be complex, and the other way around. It's important to understand how effort and value relate to each other when developing AI Assistants.

06 Bot and user needs

Now that you have your use case you want to use the Conversation Design Canvas to get a better understanding of the context of the conversation. The canvas helps you understand the user's motivations, anxieties, and expectations. This is crucial information when designing conversations.

Once you have a good understanding of the user, it's time to look at the conversation from the bot's perspective. To help the user in this situation, what kind of questions should he ask, what is information that he already has, and what kind of data can he retrieve from a database?

At the end of this step, you can picture the whole context of the conversation and prepare yourself for the next step.

07 Sample dialogue

Sample dialogue is key to designing for empathy and creating human-centric conversations. Two people will sit back to back from each other. One will play the user, as described in the Conversation Design Canvas, and the other will play the bot, as described in the Conversation Design Canvas.

They will engage in role-play. In improvisational theater. And as they do this, they will try and figure out what the most natural flow of the conversation should be. They turn knowledge and process into human-centric conversational flows.

08 Flowcharting

Once the first draft of the conversation has been designed through sample dialogue, it's time to turn it into a flowchart. This flowchart gives you the basic structure of your happy flow.

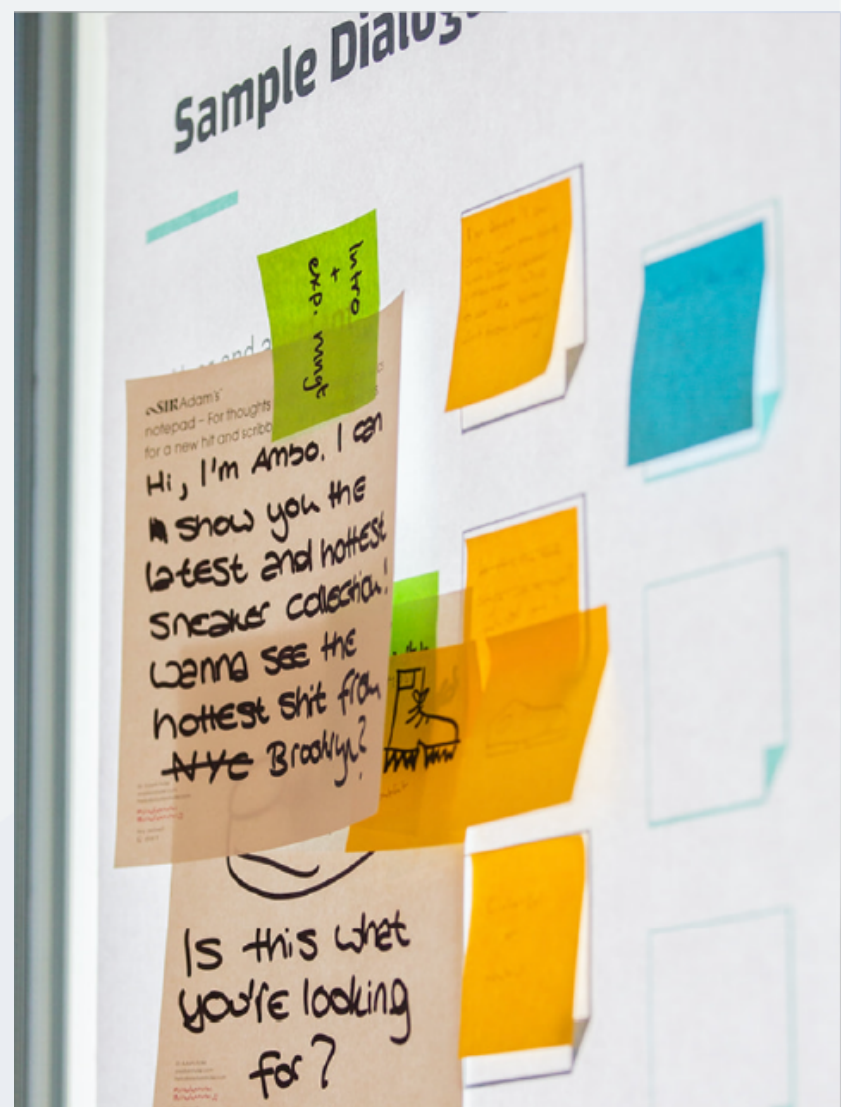
09 Wizard of Oz

You will now test this flowchart with about 5-10 people. These people can speak freely and you reply to whatever the prompts say on your flowchart. This allows you to quickly validate your design and learn from real interactions. With about 5-10 people you will have a clear understanding of what needs to be improved before you can knock it out of the park.

10 Expert rewrite

During the expert rewrite, you will turn your flowchart into clear copy. You will make sure that it's in line with the bot personality and that all sentences are structured according to conversation design fundamentals. At the end of the Expert rewrite, you can move on to Detailed Conversation Design.

Detailed Conversation Design happens once the Happy Conversation Design phase is completed. With most of our projects, we actually take one sprint for Happy Conversation Design, and move the use case over to Detailed Conversation Design in the next sprint.





Final steps

Detailed conversation design

11 AI Training

Now that the design has been validated and polished with clear and resonating copy, you can start training the language model. You start implementing it into your platform and use the collected utterances to train the model.

12 Long-tail

Long-tail design has to do with handing over your conversations. You want to make sure that 80 percent of your users go through 20 percent of your conversational paths. The rest you hand over to live agents, web pages, or other sources of information.

You want to make sure that you focus on the bulk of your users and don't get lost designing for exceptions that hardly ever occur.

13 Error handling

Of course, not everything always goes right the first time. That's why you need to pay attention to error handling. You want to write repair messages for each time the user doesn't respond, or for when he says something that you don't understand. It's important to not use generic copy but actually write custom messages for each prompt.

14 Deploy

Now that everything is set and done, you can deploy your AI Assistant. You have a clear design that is validated with users, that has proper handovers, and that has a repair strategy for when things go south. Deploy, and keep an eye on it.

15 Optimization

Your chatbot or voice assistant is live, but that's only the beginning. Every day you want to look at the data to see how it performs. You want to analyze drop offs and find things to improve. Sometimes you need to train the model better, sometimes a certain dialogue just doesn't work the way you had hoped. It's an ongoing process.

— Final thoughts

Building a great chatbot

There you have it. 15 important steps you need to take when building a winning chatbot or voice assistant.

This is the full Conversation Design Institute workflow that has proven itself around the world. Of course, not everybody can be an expert in every step. That's why there are different courses and certificates for each role.

Do you want to know more about this workflow and our courses? Read our blog on why conversation design is essential for bot building.

Got a question?
Let's talk!

Want to know more about this workflow and our courses?

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